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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/605,301	09/22/2003	Darrell Snell		2300
7590	10/12/2005		EXAMINER	
Steven Roberts 6-1-507 Kamiyamada Suita Osaka, 565-0872 JAPAN			HRUSKOCI, PETER A	
		ART UNIT	PAPER NUMBER	1724

DATE MAILED: 10/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/605,301	SNELL ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Peter A. Hruskoci	1724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 25 August 2005.
- 2a) This action is **FINAL**.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-5 and 14-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-5 and 14-21 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                    | Paper No(s)/Mail Date. _____.   |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____. | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|   | 6) <input type="checkbox"/> Other: _____.                                   |

The disclosure is objected to because of the following informalities: In the amendment to paragraph [0022] “polydimethylallyl” appears to be erroneous and should be changed to – polydimethyldiallyl -, in view of paragraph [0031] of the specification.

Appropriate correction is required.

Claims 4 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claims 4 and 17 “polydimethylallyl” appears to be erroneous and should be changed to – polydimethyldiallyl -, in view of paragraph [0031] of the specification.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5, 14-16, and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Noda et al. 4,710,298. It is submitted that Noda et al. (see col. 1 line 24 through col. 8 line 42) disclose the filter aid or auxiliary comprised of a cellulosic material and cationic polymer flocculating agent as recited in the instant claims. Since the mixture of cellulosic material and cationic polymer flocculating agent disclosed in Noda et al. is considered patentably indistinguishable from the filter aid of the instant invention, it would be inherent that this mixture is capable of removing metal particles and allowing organic compounds to pass therethrough as recited in the instant claims.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noda et al. as above, and further in view of Koslow 2003/0168401 or Strominger et al. 5,284,634. The claims differ from Noda et al. as applied above, by reciting that the filter aid includes a specific group of cationic amine or imine salt polymer. Koslow disclose (see page 4) and Strominger et al. (see col. 3 line 9 through col. 5 line 59) that it is known in the art to utilize diallyldimethylammonium chloride in combination with cellulose fibers or filter aids, to aid filtration of aqueous liquids. It would have been obvious to one skilled in the art to modify the filter aid or auxiliary of Noda et al. by including the recited cationic amine salt polymer in view of the teachings of Koslow or Strominger et al., to aid in filtering aqueous liquids.

Claims 4, 17, and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noda et al. as above, and further in view of Cutcher et al. 4,927,550. The claims differ from Noda et al. as applied above, by reciting that the filter aid includes a specific group of cationic amine or imine salt polymer. Cutcher et al. disclose (see col. 9-36) that it is known in the art to utilize poly(oxyethylene(dimethylimino)ethylene dichloride, as a biocide to prevent microbial growth and to drop suspended particulate matter such as metal fines, in aqueous fluids. It would have been obvious to one skilled in the art to modify the filter aid or auxiliary of Noda et al. by including the recited cationic imine salt polymer in view of the teachings of Cutcher et al., to aid in preventing microbial growth and in filtering aqueous liquids.

Applicant argues that Noda et al. neither teaches nor suggests that the filter aid is capable of removing metal particles from an oil-in-water emulsion, or one which allows water-soluble organic compounds to pass therethrough as recited in instant claims 1 and 14, respectively. Since the mixture of cellulosic material and cationic polymer flocculating agent disclosed in Noda et al. is considered patentably indistinguishable from the filter aid of the instant invention, it would be inherent that this mixture is capable of producing the function of removing metal particles and allowing organic compounds to pass therethrough as recited in the instant claims. Furthermore, applicant has not provided sufficient factual evidence to support the above argument.

Applicant argues that Koslow and Strominger et al. neither teach nor suggest that the filter aid is capable of removing metal particles from an oil-in-water emulsion, or one which allows water-soluble organic compounds to pass therethrough as recited in instant claims 4 and 17, respectively. It is submitted that this suggestion appears to be provided by Noda et al. as noted above. It is further submitted that Koslow and Strominger et al. were used to teach that it is known in the art to utilize diallyldimethylammonium chloride in combination with cellulose fibers or filter aids, to aid filtration of aqueous liquids. It would have been obvious to one skilled in the art having the references before him, to modify the filter aid or auxiliary of Noda et al. by including the recited cationic amine salt polymer in view of the teachings of Koslow or Strominger et al., to aid in filtering aqueous liquids. The cationic metal complex disclosed in Koslow is not excluded from the instant claims. Furthermore, with regard to claim 4, 17, and 19, it is submitted that Noda et al. appears to include the use of cationic imino polymers. Cutcher et al. was used to teach that it is known in the art to utilize polymeric quaternary ammonium

compounds such as poly(oxyethylene(dimethylimino)ethylene dichloride, as a biocide and to drop suspended particulate matter such as metal fines, in aqueous fluids. The dropping of suspended particulate matter in Cutcher et al. appears to include aggregation or flocculation, caused by the polymeric quaternary ammonium compounds.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter A. Hruskoci whose telephone number is (571) 272-1160. The examiner can normally be reached on Monday through Friday from 6:30AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Peter A. Hruskoci  
Primary Examiner  
Art Unit 1724

10/7/05